Federal Student Aid (FSA)
Financial Partners Portal Rollout – Release 2

System Integration Test Plan

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1.0 System Integration Test Overview

The System Integration Test Plan provides an overview of the testing necessary to ensure that the functionality delivered meets the requirements that have been identified for the Financial Partners Portal Rollout for Release 2. Included in this document is a list of detailed items that will be incorporated into test scripts and applied in the System Integration Testing.

The main purposes of System Integration Test was to:

- Test Application Functionality (login, search function, community search, links, etc…).
- Test the integration of Interwoven as the Content Management tool.
- Validate all of the above within a system test environment.

Entry Criteria for System Integration Test Execution:

- All applications and application components necessary for cycle to be completed have been inventoried and promoted.
- System Integration Test Plan is complete.
- Resources to execute tests are available.
- The System Test environment is in place.

Exit Criteria for System Integration Test:

- System Integration Test deliverable has been completed and reviewed by IV & V.
- All test cases and conditions have been executed successfully.
- Identified errors and defects have been corrected and re-tested.
- All issues and incidents have been properly documented and worked through the resolution process.
- All reviews were conducted, and that the review yields satisfactory results.

2.0 System Integration Test Scope

System Integration Test cases will be based on the following:

- Application Functionality
- Test the integration of Interwoven as the Content Management tool.

3.0 Roles and Responsibilities

System Integration Testing involved the Student Portal Team. The primary role for the System Integration Testing effort was the Test Team Analyst. This role is described below:

3.1 Test Team Analysts

- Assist in the development of the System Integration Test Plan.
- Execute the System Integration tests.
- Evaluate the System Integration test results.
- Report all incidents and problems encountered during testing activities.

Ms. Teale Taggart, Ms. Anne Jensen and Bryan Hykes will serve as the System Test Team Analysts.

3.2 Test Team Lead

- Define a System Integration Test Plan.
- Define System Integration test cases and scripts.
- Monitor the testing process to identify problems, mitigate potential risks and schedule slippage.

- Review test results with the test team to clarify questions, concerning system functionality and discrepancies with expected results, and ensured that the system testing activity was a valid and complete exercise.

- Certify that the testing process was comprehensive in scope and complete manage the execution of system integration tests.

Erick Middleton will serve as the Test Team Lead

4.0 Developing Test Cases

The Financial Partners System Integration test cases were developed to test the requirements for Release 2. The test cases were created based on requirements from the Financial Partners Requirements Traceability Matrix. The test scripts were developed based on the following Release 2 documents: Financial Partners Detailed Design, Financial Partners Content Management Design and the Detailed Portlet Technical Requirements. The test scripts will be updated, if necessary, when one of these documents is updated or when a gap exits with the test scripts. Exception cases have been included in the test scripts where necessary. The test scripts give detailed steps to test the requirements identified for Release 2.

4.1 Executing and Validating Test Cases

Each test case was designed as a discrete, executable exercise that would return a predictable result. Test Cases included a setup, input, and expected result sections. Each test case was designed to verify the functionality of a business scenario and described step by step how the business scenario was being tested.

The actual test results were then compared to the expected results to determine if the test ran correctly, "Pass" (or incorrectly, "Fail") by the Test Team Analyst executing the case.

A "discrepancy" was defined as the difference between what was *expected* to happen and what *actually* happened. Discrepancies were initially evaluated to ensure that they represent system defects. The initial evaluation of discrepancies included:

- Review of the test data;

- Review of the test environment;

- Review of test scripts;
- Review of actual system functioning.

If it was determined that the "discrepancy" represented a system defect, the incident was forwarded to the development team for assessment and proposed solution. After successfully testing the modification, the incident was designated as "closed" by the Test Team Lead.

Validation of a test case occurred when the specific test activity has a status of "Pass" and was reviewed by the Test Team Lead. Completion of System Integration Testing was dependent upon each test activity having a status of "pass".

Each test case / script will be executed by a Test Team Analyst in the test environment. The test environment is isolated logically on a server, but the server is shared with other applications. Only users who know the ID / PWD can login to Financial Partners portal. The Test Team Analyst will login to the Financial Partners portal before System Integration Testing is set to begin.

The test cases / scripts will be run in cycles and will be executed each time a new cycle is run. The entire Financial Partners portal will be regression tested each time a new cycle is run.

**Note: All tests objects are under Configuration Management control and are stored in Visual Source Safe.

4.2 SIR Tracking Process

While executing the test cases / scripts, the Test Team Analyst will keep track of issues and enhancements they find during System Integration Testing. ClearQuest will be used to record and manage system defects. The issues and enhancements found will be entered into ClearQuest by a Test Team Analyst. The Test Team Analyst will assign a degree of severity (1-Critical, 2-Average, 3-Minor, 4-Enhancement) and assign it to the appropriate developer to make the fix.

Critical defects are critical in nature and result in full or partial system failure, do not have acceptable workarounds, and demand immediate action. Average defects are non-critical in nature resulting in intermittent system failure or problems, do have acceptable workarounds, and do not prohibit the users from performing their tasks. Minor defects do not stop system operation, do have acceptable workarounds, are cosmetic in nature, have minimal effect on the system, do not prohibit the users from performing their tasks, and have the least priority.

When the issue has been resolved, the Test Team Analyst will test the modification and mark the incident as "closed" if the problem has been fixed. The Financial Partners portal page, where the problem was found, will also be regression tested. If the problem has not been fixed, the Test Team Analyst will mark the incident as unresolved and assign it to the appropriate developer to make the fix. This process will continue until the incident is marked as closed.

5.0 Test Scenarios/Cases

The following is a list of test cases, which will be used to write detailed test scripts. Detailed test scripts with expected results will be documented for each item listed below.

5.1 General Application Functionality and Security

- Verify that a user is alerted by either a disclaimer tag or window alert when users leave the portal site to go into a non-ED site.
- Verify that documents or pages within the portal have a last modified stamp of when it was updated, modified or created.
- Verify that each document within the portal has a tag next to it, which clearly states what format it is in (PDF, Word, HTML, etc.).
- Verify that headlines have the ability to be linkable and non-linkable and that internal links open in the same window; external links open in a new window.
- Verify that Students and Financial Partner headlines are read to separate tables.
- Verify that the Community Calendar events have the ability to be linkable and non-linkable and that internal links open in the same window; external links open in a new window.
- Verify that the number '1' on the calendar is highlighted when clicked.
- Verify that if the 1st day of the month is selected that day does not highlight.
- Verify that the Students and Financial Partners surveys and feedback go to different mail locations.
- Verify that search has pagination capabilities.

5.2 Publications, Content

- Verify the functionality of the THOMAS link.
- Verify that the handbooks, user guides, acronym list, NSLDS Status Codes and the Lender Audit Guide are grouped under 'Reference Material' on the Publications page.
- Verify that the New Federal Registers, Dear Partner / Colleague Letters, and Electronic Announcements are grouped under 'Regulatory and Legal Information' on the Publications page.
- Verify that the 100 Originating Lenders List and the Default Rate Materials Information are

grouped under 'Statistics and Trends'.
- Verify that the VFA Initiative section has been removed from the Publication page and that it has been moved to the Current Activities page.

5.3 Community Members, Content

- Verify the FFEL schools, Lenders and Guaranty Agency data updates from PEPS and Data Mart.
- Verify that a user can search for Secondary Markets using the Community Locator, Category Search or the Alphabetical Search.
- Verify that a user can search alphabetically or categorically across 'ALL' community members.
- Verify that Lender Ids and locations have been added to the list of lenders in the Community Members search.
- Verify that Direct Loan Schools have been added to the Community Members search.

5.4 Contact Resources, Content

- Verify that state contacts for each region have been added to the specific regional pages.
- Verify that there is a map legend with text describing the color scheme of the map.
- Verify that when a user clicks on a person on the organization chart they see a pop-up window with information on that individual.
- Verify that when the user click on the person's email link it opens their default mail client with their email address populated in the 'To' field.
- Verify that there are FSA Organization Charts on the Contact Resources page.

5.5 Loan and Grant Resources Content

- Verify that there are short descriptions introducing the resources listed on the Loan and Grant Resources page.
- Verify that there is a Students Portal link at the bottom of the Loan and Grant Resources page that read 'If you are a student looking for counseling resources or loan / grant information please see out Student Portal.
- Verify that there is a Feedback link at the bottom of the Loan and Grant Resources page which goes to fpportal@ed.gov.

5.6 Counseling Resources Content

- Verify that the entire Counseling Resources page has been removed from the portal.

5.7 Community Calendar Content

- Verify that there is a fpportal@ed.gov email link at the bottom of the Community Calendar page.

5.8 FMS Content

- Verify that there are user buttons on the top of the FMS page or that the scrolling has been minimized.

5.9 Interest Rates Content

- Verify that users are notified on the What's New page and the Interest Rates box on the home page whenever interest rates are updated.

5.10 Search/Advanced Search

- Verify that there is a link to the Department of Education at the bottom of every search/advanced results page and text explaining to the user 'If you have not found what you are looking for, you can try the Department of Education website'.

5.11 What's New Content

- Verify that there is a What's New page that only contains recent news and or postings (i.e. new forms, meeting minutes, presentations, announcements).

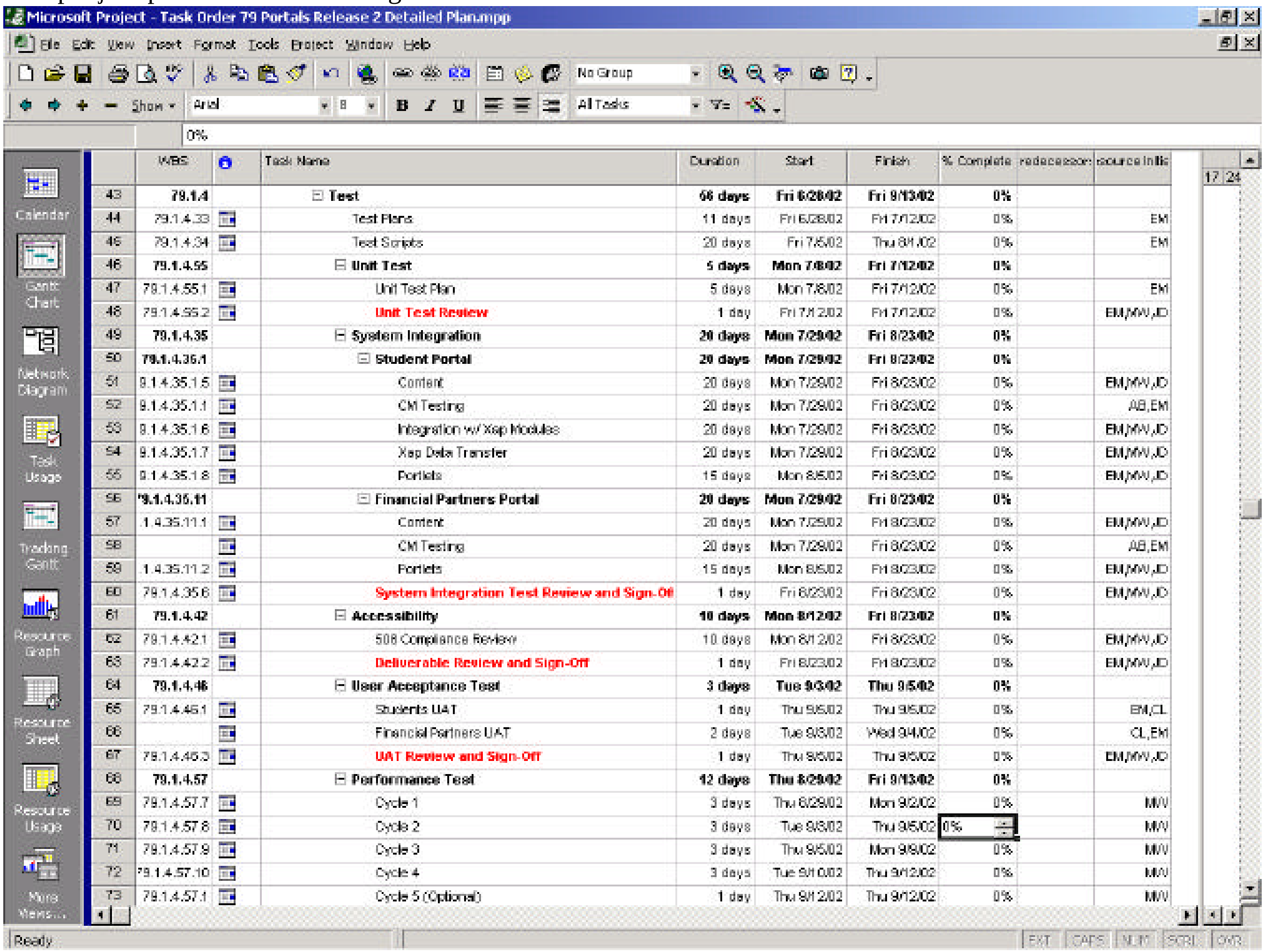
5.12 Interwoven

- Verify that Interwoven provides a user the ability to create (new page) or edit a piece of content.
- Verify that if a user creates a piece of content, Interwoven displays the available list of Data Capture Templates.
- Verify that when reviewing existing content, Interwoven displays all comments already associated with that content.
- Verify that when content is accepted, Interwoven ends the current user's task, and moves the content to the next step in the workflow.
- Verify that when content is rejected, Interwoven ends the current user's task and moves the content to the next step in the workflow.
- Verify that Interwoven provides the user the option to view an illustrative version of a piece of content as it might appear on the live website.
- Verify that Interwoven allows an approver to accept (submit content to staging), or reject (return content to owner) content.
- Verify that Interwoven allows a user to copy and paste existing content into a DCT for a new data capture record.
- Verify that Interwoven can archive content.

- Verify that Interwoven allows the system administrator to structure and name a workflow based on functional processes.
- Verify that Interwoven provides the user the option to tie user groups to the different steps of a workflow.
- Verify that Interwoven captures the workflow history of a piece of content for audit purposes.
- Verify that Interwoven provides an area within workflow for a user's comments.
- Verify that Interwoven provides a workflow that is initiated when a user or specific role submits a file.
- Verify that the workflow couples the relevant content with the workflow.
- Verify that the workflow automatically deploys content to the test environment after file submission.
- Verify that the workflow sends content to an approver after file submission.
- Verify that the workflow provides the approver the capability to approve content changes.
- Verify that the workflow provides the approver the capability to reject content changes.
- Verify that the workflow automatically deploys content to the production environment after approval.
- Verify that the workflow sends content back to user who initiated workflow after rejection.
- Verify that the workflow allows an external contributor (no access to Interwoven) the ability to review and accept content.
- Verify that Interwoven provides the ability to send email notification at each decision point in the workflow.
- Verify that Interwoven prevents an editor from approving his own work.

6.0 Overall Testing Schedule

The project plan dates for testing activities are:



	WBS		Task Name	Duration	Start	Finish	% Complete	Predecessors	Resource Initials
43	**79.1.4**		**Test**	**66 days**	**Fri 6/28/02**	**Fri 9/13/02**	**0%**		
44	79.1.4.33		Test Plans	11 days	Fri 6/28/02	Fri 7/12/02	0%		EM
45	79.1.4.34		Test Scripts	20 days	Fri 7/5/02	Thu 8/1/02	0%		EM
46	**79.1.4.55**		**Unit Test**	**5 days**	**Mon 7/8/02**	**Fri 7/12/02**	**0%**		
47	79.1.4.55.1		Unit Test Plan	5 days	Mon 7/8/02	Fri 7/12/02	0%		EM
48	79.1.4.55.2		**Unit Test Review**	1 day	Fri 7/12/02	Fri 7/12/02	0%		EM,MW,JD
49	**79.1.4.35**		**System Integration**	**20 days**	**Mon 7/29/02**	**Fri 8/23/02**	**0%**		
50	**79.1.4.35.1**		**Student Portal**	**20 days**	**Mon 7/29/02**	**Fri 8/23/02**	**0%**		
51	9.1.4.35.1.5		Content	20 days	Mon 7/29/02	Fri 8/23/02	0%		EM,MW,JD
52	9.1.4.35.1.1		CM Testing	20 days	Mon 7/29/02	Fri 8/23/02	0%		AB,EM
53	9.1.4.35.1.6		Integration w/ Xap Modules	20 days	Mon 7/29/02	Fri 8/23/02	0%		EM,MW,JD
54	9.1.4.35.1.7		Xap Data Transfer	20 days	Mon 7/29/02	Fri 8/23/02	0%		EM,MW,JD
55	9.1.4.35.1.8		Portlets	15 days	Mon 8/5/02	Fri 8/23/02	0%		EM,MW,JD
56	**'9.1.4.35.11**		**Financial Partners Portal**	**20 days**	**Mon 7/29/02**	**Fri 8/23/02**	**0%**		
57	.1.4.35.11.1		Content	20 days	Mon 7/29/02	Fri 8/23/02	0%		EM,MW,JD
58			CM Testing	20 days	Mon 7/29/02	Fri 8/23/02	0%		AB,EM
59	.1.4.35.11.2		Portlets	15 days	Mon 8/5/02	Fri 8/23/02	0%		EM,MW,JD
60	79.1.4.35.6		**System Integration Test Review and Sign-Off**	1 day	Fri 8/23/02	Fri 8/23/02	0%		EM,MW,JD
61	**79.1.4.42**		**Accessibility**	**10 days**	**Mon 8/12/02**	**Fri 8/23/02**	**0%**		
62	79.1.4.42.1		508 Compliance Review	10 days	Mon 8/12/02	Fri 8/23/02	0%		EM,MW,JD
63	79.1.4.42.2		**Deliverable Review and Sign-Off**	1 day	Fri 8/23/02	Fri 8/23/02	0%		EM,MW,JD
64	**79.1.4.46**		**User Acceptance Test**	**3 days**	**Tue 9/3/02**	**Thu 9/5/02**	**0%**		
65	79.1.4.46.1		Students UAT	1 day	Thu 9/5/02	Thu 9/5/02	0%		EM,CL
66			Financial Partners UAT	2 days	Tue 9/3/02	Wed 9/4/02	0%		CL,EM
67	79.1.4.46.3		**UAT Review and Sign-Off**	1 day	Thu 9/5/02	Thu 9/5/02	0%		EM,MW,JD
68	**79.1.4.57**		**Performance Test**	**12 days**	**Thu 8/29/02**	**Fri 9/13/02**	**0%**		
69	79.1.4.57.7		Cycle 1	3 days	Thu 8/29/02	Mon 9/2/02	0%		MW
70	79.1.4.57.8		Cycle 2	3 days	Tue 9/3/02	Thu 9/5/02	0%		MW
71	79.1.4.57.9		Cycle 3	3 days	Thu 9/5/02	Mon 9/9/02	0%		MW
72	'9.1.4.57.10		Cycle 4	3 days	Tue 9/10/02	Thu 9/12/02	0%		MW
73	79.1.4.57.1		Cycle 5 (Optional)	1 day	Thu 9/12/02	Thu 9/12/02	0%		MW

Note: Any changes in the development timeframes will have significant effect on this plan.

7.0 ISSUES / QUESTIONS

The following issues / questions related to the System Integration Test Plan.

Issue	Resolution